APPARATUS AND METHOD FOR PROVIDING MULTIMEDIA MESSAGING BETWEEN DISPARATE MESSAGING PLATFORMS

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to an apparatus and method for providing multimedia messaging between disparate messaging platforms. More particularly, the present invention pertains to a computer system that supports voice, fax, and electronic messaging between disparate messaging interfaces that transmit and receive messages on a variety of networks, including the Internet.

2. Description of the Related Art

Messaging systems that use a voice message format are known in the art. For example, the messaging system as illustrated in U.S. Pat. No. 5, 568,540 to Greco et. al., enables a user to receive messages having a voice mail format either through a telephone or through a personal computer coupled to a LAN. It also provides a graphical user interface ("GUI") on the personal computer to select which voice mail messages to receive and in what order.

However, the messaging system in Greco is a stand-alone system and consequently, cannot provide the advantages of linking to other similar messaging systems, and cannot provide the GUI feature to users not linked to the messaging system via the LAN, i.e., it is a closed messaging system. Thus, the recipient is limited to using the personal computer coupled to the messaging system's LAN if the recipient wishes to use the GUI feature provided by the messaging system. Recipients not connected to the LAN must use a telephone to obtain their messages and do not have the option of retrieving their voice mail messages by such commonly known means as the Internet such as through a personal computer running a web browser. Also, senders and recipients may incur long distance charges if they are not within the local area code of the messaging system phone number when accessing a voice mailbox through a telephone.

Another commonly used format in a messaging system is facsimile transmission and reception ("faxing"). As in voice mail messaging, faxing requires that both the sender and recipient have an apparatus capable of supporting a fax messaging format such as a fax machine or a computer with a fax modem. Fax messaging systems also may incur long distance charges if the receiving fax machine is not within a local area code although non-urgent transmissions may be time-shifted, i.e., the fax may be stored for transmission during off-peak hours, to obtain less costly transmission charges.

Email messaging is another commonly used format in a messaging system that has become almost as ubiquitous as the fax machine. As in the above types of messaging systems, email messaging requires both the sender and the recipient to have access to a common messaging medium, i.e, both must have access to an email account or a suitable network. Email messaging systems also typically do not provide for sending or receiving messages having either a fax or voice mail format. However, unlike in voice mail and faxing messaging systems, sending and receiving email messages usually only requires a dial-up connection to a local internet service provider (ISP) and thus, avoids long distance telephone line charges.

Accordingly, it would be desirable to provide an apparatus and method for integrating voice, fax, and email messaging between disparate messaging interfaces which employ different messaging formats and which use different networks between subscribers and non-subscribers through a switchable communications backbone such as the Internet.

SUMMARY OF THE INVENTION

The present invention is an apparatus and method for receiving a message having a first format and for converting the message from the first format to a second format that is compatible for reception by a messaging interface having a destination address corresponding to an intended recipient. In the preferred embodiment, a computer system is used to receive and send messages between messaging interfaces and networks which may be dissimilar from each other. A variety of network interfaces is used to communicate with the networks and which may optionally have a first interface and a second interface for interfacing to a first and second network, respectively. A receiving program or equivalent device receives an incoming message and delivery information from the first interface, where the incoming message has a message content format of a first type. A converter or equivalent device converts the incoming message having the message content format of a first type to a message having a message content format of a second type. The delivery information is used by the converter to determine the message content format of a second type for the message. A presenting program or similar device presents the message having the message content format of a second type to at least one recipient specified in the delivery information. The message content format of a second type includes a type where the message is stored in a location in memory and where the location in memory is pointed to by location information such as a universal resource locator.

The present invention may optionally have the following: a browser interface to control messages presented by the computer system on a real-time basis using hypertext commands; a recipient notification program or equivalent device that determines when a recipient is logged on to a network and if so, provides any messages stored in the recipient's mailbox to the recipient; a connection notification program or equivalent device that notifies the computer system that a recipient is logged on to a network so that the computer system can send to a recipient any messages stored in the recipient's mailbox; a message forwarding program or equivalent device that enables the computer system to forward messages to a second computer system via one of the networks used by the computer system; and an apparatus and method for sending and receiving a destination address including Internet addresses using a DTMF generator such as a standard telephone keypad.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a schematic block diagram of a messaging system in a presently preferred embodiment of the present invention.

FIG. **2** is a schematic block diagram of a messaging server in a presently preferred embodiment of the present invention.

FIG. **3** is a schematic block diagram showing the operation of a fax to fax messaging mode in a presently preferred embodiment of the present invention.

FIG. **4** is a schematic block diagram illustrating the use of messaging servers during the operation of a fax to fax messaging mode in a presently preferred embodiment of the present invention.

FIG. **5** is a schematic block diagram showing the operation of a fax sent via email messaging mode in a presently preferred embodiment of the present invention.